



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,840	01/08/2001	Lars Bergholtz	027650-908	2930
21839	7590	10/03/2003	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			AUGHENBAUGH, WALTER	
POST OFFICE BOX 1404			ART UNIT	
ALEXANDRIA, VA 22313-1404			PAPER NUMBER	

1772

DATE MAILED: 10/03/2003

18

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/700,840

Applicant(s)

BERGHOLTZ ET AL.

Examiner

Walter B Aughenbaugh

Art Unit

1772

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-16 is/are rejected.
- 7) ☒ Claim(s) 12 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Acknowledgement of Applicant's Amendments***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 26, 2003 (Paper 17) has been entered.
2. The amendments made in claims 1, 9 and 14 given on pages 2-5 of Paper 17 have been received and considered by Examiner.

### ***REPEATED OBJECTIONS***

3. The objection to claims 12 and 16 made of record in paragraph 10 of Paper 14 has been repeated for reasons previously made of record in paragraph 10 of Paper 14. Applicant did not address this objection in Paper 17.

### ***WITHDRAWN REJECTIONS***

4. The 35 U.S.C. 102(b) rejection of claims 1, 2, 5-10 and 12-16 as anticipated by Akao et al. made of record in paragraph 11 of Paper 14 has been withdrawn due to Applicant's arguments in Paper 17 solely in regard to the basis of the rejection regarding the antiblocking agents and oxygen scavengers taught by Akao et al.
5. The 35 U.S.C. 103(a) rejection of claim 3 over Akao et al. in view of Rosen made of record in paragraph 12 of Paper 14 has been withdrawn since claim 3 is dependent on claim 1.
6. The 35 U.S.C. 103(a) rejection of claim 11 over Akao et al. made of record in paragraph 13 of Paper 14 has been withdrawn since claim 11 is dependent on claim 9.

***NEW REJECTIONS***

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1, 9 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The difference between the structure intended to be recited by the phrases “randomly distributed” and “uniformly distributed” is not described in the specification. Figure 1, which Applicant relies on for support for insertion of the phrase “randomly distributed” on page 6 of Paper 17, which shows carbon black particles (item 11c) and light reflecting mineral particles (item 11b) distributed in a plastic compound (item 11a) (see page 5 of specification), does not indicate a difference between the distribution of the carbon black particles (item 11c), which are claimed as being distributed randomly in Paper 17, and the light reflecting mineral particles (item 11b), which are claimed as being distributed uniformly in Paper 17. How are the carbon black particles depicted as being distributed randomly and the light reflecting mineral particles uniformly in Fig. 1? What feature/s in Fig. 1 indicate/s that the carbon black particles are distributed randomly while the light reflecting mineral particles are not or that the light reflecting mineral particles are distributed uniformly while the carbon black particles are not?

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 1772

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1, 9 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrases “randomly distributed” and “uniformly distributed” render the claims indefinite; claims 1, 9 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the feature/s of the relationship between the carbon black particles that warrant/s the classification of the distribution of the carbon black particles as random and the feature/s of the relationship between the light reflecting mineral particles that warrant/s the classification of the distribution of the light reflecting mineral particles as uniform.

***Claim Rejections - 35 USC § 102***

11. Claims 1, 2, 5-10 and 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Akao et al.

In regard to claims 1 and 12, Akao et al. teach a packaging material having at least one light-shielding layer having an ultraviolet absorber (col. 11, lines 58-67 and col. 28, line 56-col. 29, line 9), and therefore teach a packaging material comprising at least one layer of plastic that prevents the transmission of ultra-violet light as claimed by Applicant. Akao et al. teach that light-shielding materials are added to the packaging material (col. 15, lines 61-65). Akao et al. identify carbon black as a particularly preferable light-shielding material (col. 16, lines 29-33). Akao et al. teach that a suitable content of carbon black is 0.05 to 20 wt.% (col. 19, lines 26-51),

Art Unit: 1772

and a content of 0.05 to 50 wt. % of light-shielding material is claimed for the wear resistant flexible sheet (item 3a) (col. 3, lines 1-25 and col. 55, lines 60-62), ranges that overlap with the range of about 0.04 to about 1% that is claimed by Applicant. Akao et al. further identify montomorillonite, dolomite, calcium carbonate, talc, mica and clay as preferable light-shielding materials (col. 15, line 66-col. 16, line 15 and col. 17, line 19-39). Montomorillonite, dolomite, calcium carbonate, talc, mica and clay are light-reflecting minerals. Akao et al. teach the blending of light-shielding materials to ensure light-shielding ability and to improve other physical properties (col. 15, lines 63-65) and Akao et al. further teach the blending of light-shielding materials in the form of colored pellets, dispersible powder, masterbatch pellets, wet granular powder or dry powder to form various blends of light-shielding material (col. 16, lines 44-58). Akao et al. teach a blend of inorganic material having ion exchange ability such as activated clay or mica with the light shielding material (including carbon black as defined by Akao et al.) in a layer of the packaging material of Akao et al. (col. 32, lines 4-8). Akao et al. teach that the blending amount of the inorganic material having ion exchange ability such as activated clay or mica is 0.01 to 10wt% (col. 32, lines 30-34), a range that overlaps with the range of about 3 to about 80% claimed by Applicant. Akao et al. also teach blending calcium carbonate or clay in an amount of 0.1 to 60 wt.% in the layers of the invention including the wear resistant flexible sheet (item 3a) (col. 33, line 61-col. 34, line 3), a range that overlaps with the range of about 3 to about 80% claimed by Applicant, and therefore teaches a blend of light shielding material (including carbon black as defined by Akao et al.) and calcium carbonate or clay in the wear resistant flexible sheet (item 3a) of Akao et al. since Akao et al. teach a content of 0.05 to 50 wt. % of light-shielding material for the wear resistant flexible sheet (item 3a) (col.

Art Unit: 1772

3, lines 1-25 and col. 55; lines 60-62). Blending carbon black and a light-reflecting mineral such as clay or mica in a plastic layer would result in a random distribution of carbon black particles in the plastic layer and a uniform distribution of light-reflecting mineral particles throughout the plastic layer; the terms uniform and random, when used to describe a distribution of particles in plastic, are interchangeable terms that indicate that the particles are distributed throughout the plastic, as evidenced by Fig. 1 of applicant's specification.

In regard to claim 2, Akao et al. teach that the wear resistant flexible sheet (item 3a, Figures 1-5) is a light-shielding polyolefin resin layer (col. 45, lines 63-64).

In regard to claim 5, Akao et al. teach that a light-shielding thermoplastic resin layer (item 7a) (col. 3, line 11 and col. 46, line 13) is sandwiched between a light-shielding wear resistant flexible sheet (item 3a) and another light-shielding thermoplastic resin layer (item 7a') (see Figure 3) via direct lamination or coextrusion (col. 6, lines 2-20); Akao et al. therefore teach that the plastic layer preventing the transmission of ultra-violet light is surrounded by outer layers of plastic on both sides of the plastic layer where the outer layers are permanently united to the plastic layer without intermediate binder or adhesive.

In regard to claim 6, Akao et al. teach that the wear resistant flexible sheet (item 3a) is formed from various thermoplastic resin films such as various polyethylene resin films, ethylene copolymer resin films and polypropylene resin films (col. 5, lines 55-59). Akao et al. teach that the various polyethylene resin films, ethylene copolymer resin films and polypropylene resin films for use as the wear resistant flexible sheet (item 3a) are thermoplastic resin films and are therefore taught as materials for use as the thermoplastic resin layers (items 7a and 7a'), and therefore, Akao et al. teach that the plastic of the two outer layers (items 3a and 7a') is the same

Art Unit: 1772

plastic as the plastic of the layer that prevents transmission of ultraviolet light. Furthermore, Akao et al. teach the use of preferably similar polyethylene resins for the layers of the invention (col. 33, lines 61-66).

In regard to claim 7, Akao et al. teaches that the light shielding material that is included in the two outer layers (items 3a and 7a') is selected, inter alia, from such white pigments as titanium oxide, lead white and zinc white (col. 17, lines 19-41) that would conceal the intermediate layer (item 7a) containing carbon black, at least from one direction. Furthermore, Akao et al. teach the inclusion of titanium dioxide (a white pigment) in the layers of the invention (col. 33, line 61-col. 34, line 3) that would conceal the intermediate layer (item 7a) containing carbon black, at least from one direction.

In regard to claim 8, Akao et al. teach a light-shielding bag formed from the packaging material (col. 32, lines 61-63) that is applicable to various photosensitive materials such as food (col. 39, lines 27-31). The limitation "characterized in that it is produced by a combined extrusion and blow moulding operation of a packaging material as claimed in claim 1" is a method limitation that has not been given patentable weight since the method of forming the package is not germane to the issue of patentability of the package itself.

In regard to claim 9, Akao et al. teach the light-shielding bag for various photosensitive materials such as food comprising an intermediate plastic layer and two outer layers on either side of the intermediate layer, wherein the intermediate layer comprises about 0.04% to about 1.0% by weight light absorbing material randomly distributed throughout the intermediate layer and about 3% to about 80% light reflecting material uniformly distributed throughout the intermediate layer such that the intermediate layer prevents the transmission of ultraviolet light



Art Unit: 1772

wherein the two outer layers are fabricated from the same plastic as the intermediate layer as discussed above. Akao et al. teaches that the light shielding material that is included in the two outer layers (items 3a and 7a') is selected, inter alia, from such white pigments as titanium oxide, lead white and zinc white (col. 17, lines 19-41) in an amount of 0.01 to 30wt.% (col. 19, lines 26-27) that would conceal the intermediate layer (item 7a) containing carbon black, at least from one direction. Furthermore, Akao et al. teach the inclusion of titanium dioxide (a white pigment) in the layers of the invention in an amount of 0.1 to 60wt.% (col. 33, line 61-col. 34, line 3) that would conceal the intermediate layer (item 7a) containing carbon black, at least from one direction. Akao et al. therefore teach that at least one of the outer layers comprises less than about 5% by weight of a white pigment. Akao et al. teach that one layer of the multilayer bag is colored white (col. 43, line 65-col. 44, line 5), and therefore, the bag has a white appearance.

In regard to claim 10, Akao et al. teach that the light absorbing material is carbon black (col. 16, lines 29-33) and that the light reflecting material is selected from montmorillonite, dolomite, calcium carbonate, talc, mica and clay (col. 15, line 66-col. 16, line 15 and col. 17, line 19-39). In regard to claim 13, Akao et al. teach the inclusion of titanium dioxide (a white pigment) in the layer of plastic (col. 33, line 61-col. 34, line 3).

In regard to claim 14, Akao et al. teach the light-shielding packaging material for various photosensitive materials such as food comprising at least two layers of plastic wherein a first layer of plastic comprises about 0.04% to about 1.0% by weight of a light absorbing material randomly distributed throughout the first layer and about 3% to about 80% by weight of a light reflecting material uniformly distributed throughout the first layer wherein the light reflecting and light absorbing materials are uniformly distributed throughout the first plastic layer as

Art Unit: 1772

discussed above. Akao et al. further teach a second layer of plastic that comprises less than about 5% by weight of a white pigment as discussed above. The layers are combined such that the layers prevent the transmission of ultraviolet light and while presenting a white appearance when viewed from the second side of the material as discussed above. In regard to claim 15, Akao teaches that the plastic of both first and second layers is a polyolefin as discussed above in the rejection to claim 6. In regard to claim 16, Akao et al. teach that the light absorbing material is carbon black (col. 16, lines 29-33) and that the light reflecting material is selected from montmorillonite, dolomite, calcium carbonate, talc, mica and clay (col. 15, line 66-col. 16, line 15 and col. 17, line 19-39).

***Claim Rejections - 35 USC § 103***

12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akao et al. in view of Rosen.

Akao et al. teach a packaging material having at least one light-shielding layer as described above. Akao et al. also teach that flexible sheet 3a has heat-sealability (col. 3, lines 3-5 and col. 55, lines 4-5). Akao et al. teach that heat-sealable layers may be formed from polyolefin resins, and that ethylene copolymer resins are preferred heat-sealable polyolefins due to excellent heat-sealing properties (col. 7, line 65 through col. 8, line 4). Ethylene-propylene copolymer is disclosed as a suitable ethylene copolymer resin (col. 8, lines 5-7). Akao et al. does not teach that the ethylene-propylene copolymer has a melt index between 0.5 and 5 according to ASTM (2.16 kg, 230°C). Rosen, however, teaches a packing material in web or sheet form made from a mineral-filled propylene-based polymer with a melt index of between 0.5 and 5 according to ASTM (2.16 kg, 230°C) (col. 3, lines 43-47). Rosen discloses that preferably the

Art Unit: 1772

propylene-based polymer is chosen among propylene-ethylene copolymers with a melt index within the above specified range of between 0.5 and 5 since those copolymers have been able to withstand folding and bending operations without cracking even at low temperatures which normally occur during the conversion of the packing material into fold packing containers and the subsequent filling of the fold packing containers with liquid food, such as milk (col. 3, lines 55-64). Therefore, one of ordinary skill in the art would have recognized to use a propylene-ethylene copolymer with a melt index of between 0.5 and 5 according to ASTM (2.16 kg; 230°C) as the plastic for the carbon black and mineral-filled layer in order to achieve superior mechanical properties even at low temperatures as taught by Rosen.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used in Akao's packaging material with at least one light-shielding layer a propylene-ethylene copolymer with a melt index of between 0.5 and 5 according to ASTM (2.16 kg; 230°C) as the plastic for the carbon black and mineral-filled layer in order to achieve superior mechanical properties even at low temperatures as taught by Rosen.

13. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akao et al.

Akao et al. teach the bag as discussed above. Akao et al. fail to teach that the intermediate layer of the bag comprises about 65% by weight of the light reflecting material. Akao et al., however, teaches the blending of the light-reflecting materials, calcium carbonate or clay, in an amount of 0.1 to 60 wt.% in the layers of the invention (col. 33, line 61-col.34, line 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added a sufficient amount of light reflecting material to the intermediate layer such that the amount of light reflecting material is about 65% by weight of the intermediate layer in order

Art Unit: 1772

to achieve the optimal degree of light reflection depending on the particular desired end result, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art in the absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

### ***ANSWERS TO APPLICANT'S ARGUMENTS***

14. Applicant's arguments in Paper 17 regarding the 35 U.S.C. 102 rejection of claims 1, 2, 5-10 and 12-16 as anticipated by Akao et al. (Paper 14) (excluding the arguments in regard to the basis of the rejection regarding the antiblocking agents and oxygen scavengers taught by Akao et al.) have been fully considered but they are not persuasive.

In response to Applicant's argument in the sentence bridging pages 6 and 7 of Paper 17 that Akao does not "teach or suggest the combination of any two materials identified by that reference as light shielding materials within the same layer", Akao et al. teach a blend of activated clay or mica with the light shielding material (including carbon black as defined by Akao et al.) in a layer of the packaging material of Akao et al. (col. 32, lines 4-8) as made of record in the 35 U.S.C. 102(b) rejection of claims 1, 2, 5-10, 12-16 as anticipated by Akao et al. as made of record in this Office Action (Paper 18). Clay and mica are light shielding materials as taught by Akao et al. (col. 15, line 66-col. 16, line 13).

In response to Applicant's discussion of certain examples provided by Akao et al. in the first full paragraph of page 7 of Paper 17 and the paragraph bridging pages 7 and 8 of Paper 17, the examples of Akao et al. are merely examples of the disclosure of Akao et al. and do not supercede the fact that Akao et al. teach a blend of activated clay or mica with the light shielding material (including carbon black as defined by Akao et al.) in a layer of the packaging material

Art Unit: 1772

of Akao et al. (col. 32, lines 4-8) as made of record in the 35 U.S.C. 102(b) rejection of claims 1, 2, 5-10, 12-16 as anticipated by Akao et al. as made of record in this Office Action (Paper 18).

In response to Applicant's argument in the first full paragraph of page 8 of Paper 17 that "there is no teaching or suggestion to combine the various materials, much less how the materials might be combined with a light reflecting material to minimize the darkening effect of a light shielding material such as carbon black", as established above, there is a teaching to combine activated clay or mica with carbon black in a plastic layer. Furthermore, in response to this argument and the arguments regard the claimed ranges discussed in the paragraph bridging pages 8 and 9 of Paper 17, the claimed ranges overlap with the ranges taught by Akao et al. for both the light shielding material (i.e. activated clay or mica) and carbon black, thus satisfying the requirements of 35 U.S.C. 102. Contrary to Applicant's argument that Akao "does not teach separate ranges", Akao does indeed teach separate ranges for the carbon black and for the activated clay or mica (0.05 to 20 wt.% carbon black, col. 19, lines 26-51 and 0.01 to 10wt.% clay or mica, col. 32, lines 32-34), ranges that overlap with the respective ranges claimed by Applicant.

Applicant's argument that "Akao is referring to the blending of the light shielding material with the plastic of the e.g. heat sealing layer" in regard to the teaching that light shielding materials are blended with plastic to ensure light shielding ability and to improve other physical properties is not persuasive; Akao et al. clearly intend this teaching to apply to any of the layers of the packaging material ("Light shielding material may be added to the packaging material", col. 15, lines 61-65). Akao is "referring to the blending of the light shielding material

Art Unit: 1772

with the plastic of the E.G. heat sealing layer”, but is also referring to the plastic of any of the other layers as well.

In response to Applicant’s argument in the second full paragraph of page 9 of Paper 17 that Akao does not “suggest any advantage to combining specifically carbon black and mineral particles that are otherwise lumped together within the Akao reference as interchangeable light shielding materials”, Akao et al. teach a blend of activated clay or mica with the light shielding material (including carbon black as defined by Akao et al.) in a layer of the packaging material of Akao et al. (col. 32, lines 4-8) as made of record in the 35 U.S.C. 102(b) rejection of claims 1, 2, 5-10, 12-16 as anticipated by Akao et al. as made of record in this Office Action (Paper 18).

Contrary to Applicant’s argument in the first full paragraph of page 10 of Paper 17 that Akao “does not teach teach or suggest the use of carbon black in combination with the mineral particles”, Akao et al. teach a blend of activated clay or mica with the light shielding material (including carbon black as defined by Akao et al.) in a layer of the packaging material of Akao et al. (col. 32, lines 4-8) as made of record in the 35 U.S.C. 102(b) rejection of claims 1, 2, 5-10, 12-16 as anticipated by Akao et al. as made of record in this Office Action (Paper 18). Akao et al. identify carbon black as a particularly preferable light-shielding material (col. 16, lines 29-33).

### ***Conclusion***

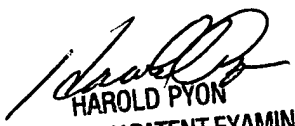
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is 703-305-4511. The examiner can normally be reached on Monday-Thursday from 9:00am to 6:00pm and on alternate Fridays from 9:00am to 5:00pm.

Art Unit: 1772

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 703-308-4251. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

wba  
09/30/03 WBA

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772 9/30/03